From: Chris Hill

To: 'Florentino, Gene'; Robert Puls/ADA/USEPA/US@EPA; Michael Overbay/R6/USEPA/US@EPA; 'Quina, Chris'; John

Satterfield; 'Lukert, George'; Susan Mravik/ADA/USEPA/US@EPA; Cassi Vann; 'Galloway, Marcia'; Debby

McElreath; Bert Smith; Nancy Coleman

Cc: <u>Mike Brownell</u>; <u>Fonda Manwell</u>

Subject: RE: EPA HF Study - EPA Stakeholder Meeting

Date: 09/07/2011 09:19 AM

That's a good recommendation. I will add attendee list to future meeting minutes.

Thanks, Chris

From: Florentino, Gene [mailto:GFlorentino@ene.com] **Sent:** Wednesday, September 07, 2011 8:43 AM

To: Chris Hill; puls.robert@epa.gov; overbay.michael@epa.gov; Quina, Chris; John Satterfield; EPA.HF.Study.Cal@sp.mychk.com; Lukert, George; Mravik.Susan@epamail.epa.gov; Cassi Vann;

Galloway, Marcia; Debby McElreath; Bert Smith; Nancy Coleman

Cc: Mike Brownell; Fonda Manwell

Subject: RE: EPA HF Study - EPA Stakeholder Meeting

Looks like you covered everything. One suggestion would be to list the call attendees (i.e., not everyone copied on the minutes attended the call).

From: Chris Hill [mailto:chris.hill@chk.com]
Sent: Tuesday, September 06, 2011 7:08 PM

To: puls.robert@epa.gov; overbay.michael@epa.gov; Quina, Chris; John Satterfield;

EPA.HF.Study.Cal@sp.mychk.com; Lukert, George; Florentino, Gene; Mravik.Susan@epamail.epa.gov;

Cassi Vann; Galloway, Marcia; Debby McElreath; Bert Smith; Nancy Coleman

Cc: Mike Brownell; Fonda Manwell

Subject: EPA HF Study - EPA Stakeholder Meeting

The meeting minutes for last Friday's conference call are provided below. I would appreciate if you would keep me honest and let me know if I missed anything from our discussions.

9/2/2011 Minutes:

- Schedule
 - Tentative milestones:
 - Land owner agreements 10/3/11
 - Monitoring well construction 11/15/11
 - Spud date has been set for 3/21/2012; this date could be pushed back to a date no later than 4/31/2012
 - o Pad construction will begin at least 3-4 weeks prior to the Spud date.
 - Well completion is typically begins 6 months after Spud date (approximately September 2012)
 - Production typically begins 2 months after well completion (approximately November 2012)
 - EPA intends to sample for approximately 12 months after production begins.
- Quality Assurance Project Plan (QAPP)

- o EPA will need to finalize the QAPP document at the end of September.
- ACTION: CHK should provide all comments to the EPA by September 12th, 2011.
- CHK has requested a copy of the EPA proposed analytical methods/SOPs.
 CHK would like to compare EPA methods to the methods to be utilized by
 CHK to ensure that the same methods are utilized by both parties and to provide input on these methods if necessary.
- ACTION: Verify with Director that EPA analytical methods can be released to outside party (Bob, 9/9/2011 IN PROGRESS)
- CHK has requested that the design plan for geophysical study be included in the QAPP so CHK can provide comments as necessary.
- ACTION: Design plan for geophysical work to be included in the QAPP (Bob, 9/7/2011)

Monitoring Wells

- Current monitoring well design plan indicates that monitoring wells will be installed on the pad site (3 to 15 meter radius from production well). CHK has indicated that this is not acceptable for a number of reasons, including:
 - Equipment activity during pad site construction could compromise or damage the monitoring wells
 - Any fencing or diversionary structures for the monitoring wells could hinder development activities necessary for pad construction and drilling/HF activities
 - Unnecessary risk to personnel.
 - Louisiana regulations may require setbacks for water wells from possible sources of contamination, and require production well setbacks from any water well
- ACTION: Request that CHK Regulatory and Operation Management weigh in on monitoring well location discussion (Chris, 9/9/2011 IN PROGRESS).
- ACTION: EPA to review Louisiana regulations regarding production well setbacks from water wells and setbacks for water wells from possible sources of contamination. (Mike O., 9/9/2011 IN PROGRESS)
- Additional options for monitoring well location/installation were discussed.
 These methods include:
 - Directionally drilled monitoring wells
 - Install wells prior to pad site construction to conduct baseline sampling; decommission wells to allow for pad construction, and then reinstall monitoring wells to resume sampling activities. CHK has indicated this is not preferred.
- ACTION: E&E to develop additional design plans for monitoring well location and installation to provide further options for discussion (Gene, 9/12/2011 IN PROGRESS)
- ACTION: CHK to speak with Operations regarding standard layout design plan for pad sites to aid in monitoring well location discussions (Chris, 9/9/2011 IN PROGRESS)
- Additionally, EPA has suggested the possibility of utilizing a geo-probe for installation of shallower wells to gather baseline data. CHK has indicated this is not preferred.

Communication Plan

 ACTION: Develop a draft communication plan (Chris, 9/12/2011 IN PROGRESS) Draft communication plan will be provided to EPA along with QAPP comments by September 12th, 2011.

Data Management

- o Data sharing between CHK/EPA will be necessary during study.
- EPA has indicated that all analysis will be made available to CHK via FTP site.
- ACTION: EPA to develop FTP site for all study data and materials and will provide CHK with access. (Bob, 9/9/2011 IN PROGRESS)
- ACTION: CHK and E&E to provide EPA with names and contact information for all parties requiring access to FTP site. (Chris, 9/6/2011 IN PROGRESS)

Meetings

- o Meetings will be moved to Monday afternoons at 1:00 pm until further notice.
- o Due to the holiday, the next meeting will be September 9th, 2011.
- ACTION: Change September 9th meeting time to 11:00 -12:00 am (Chris, 9/2/2011 COMPLETE)
- Face-to-face meeting scheduled for Monday September 19th, 2011. Meeting is anticipated to be for half-day.
- o **ACTION**: Schedule face-to-face meeting (Chris, 9/6/2011 **IN PROGRESS**)

Thank you,

Chris Hill

Environmental Engineer

Chesapeake Energy Corporation

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Mobile: (405) 388-3907 Fax: (405) 849-2321 E-mail: <u>Chris.Hill@chk.com</u>

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